Danmarks Statistik
MODELGRUPPEN

Arbejdspapir*

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Danish market share in intra-OECD trade

Resumé:

The paper highlights the implication of the growing trade between emerging economies and OECD countries on the Danish market share. The growing presence of emerging economies in the OECD market crowds out the least competitive countries. While the Danish market share is falling with respect to OECD countries' trade with the world, it is more stable in the intra-OECD trade.

DSI

Keywords: Market share, OECD market, emerging economies

Modelgruppepapirer er interne arbejdspapirer. De konklusioner, der drages i papirerne, er ikke endelige og kan være ændret inden opstillingen af nye modelversioner. Det henstilles derfor, at der kun citeres fra modelgruppepapirerne efter aftale med Danmarks Statistik.

1. Introduction

The export equations in ADAM relate market share to relative prices. The market share is measured as the ratio between Danish exports and a measure for export market index, and relative prices are defined as the ratio between Danish export prices and market prices. The export market and market price indices are in turn constructed as a weighted sum of trading partners' volume and price of imports, respectively.

The measured market indices can be affected in a number of ways. The paper DSI231112, for example, shows how sensitive the indices are to the choice of index formula – Laspeyres, Paasche or Fisher indices. Measurement error can also occur when splitting values into price and quantity. Which ultimately give a misleading picture of export performance and price competitiveness.

The list of trading partners included will also affect the market indices. Currently, the market indices in ADAM are measured based on 21 OECD countries. [1] These countries account about 84 percent of total Danish exports in 2000 and 74 percent in 2012. The share of Danish exports to BRIICS and Eastern European countries have been increasing. The emerging economies expand the market for Danish exports, but at the same time they increase the competition for the OECD market. The degree to which each of the OECD country is crowded out from the OECD market varies from product to product and country to country. The paper DSI10513 documents a falling market share since 2000 for Danish exports in the OECD market. This should not necessarily be interpreted as a worsening of export performances, as the answer to such question is not straightforward.

In light of this background, in this paper we construct market shares for Danish exports in the OECD market considering only intra-OECD trade. We use the OECD *International Trade by Commodity Statistics* (ITCS) database. The premise is that while Danish market share in the OECD market is falling due to the increasing presence of the emerging economies, it should not necessarily be falling once BRIICS and Eastern European countries are excluded from the OECD market. We show that the Danish market share is stable in the intra-OECD trade.

2. Pattern of trade

Trade between western economies and emerging economies has been increasing continuously. This pattern will continue into the future until low cost and other advantages are equalized between these economies. The overall picture of the changing pattern of trade can be seen easily by considering specific examples. Figure 1 below shows imports of Germany and United States split by place of origin. Note the OECD market consists of 22 countries - the 21 OECD countries mentioned and Denmark. BRIICS consists of Brazil,

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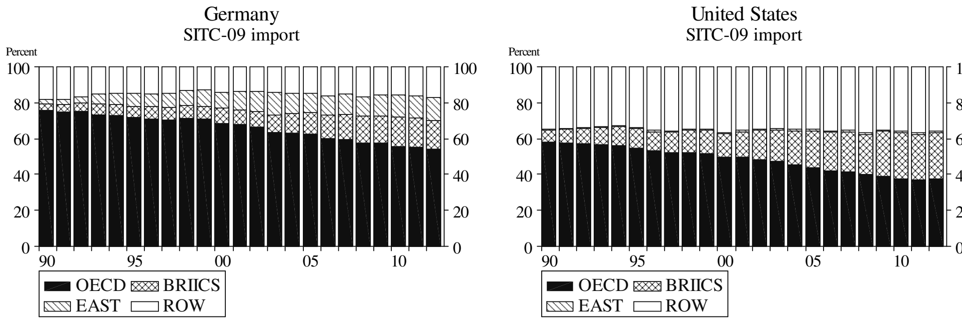
[1] Australia, Austria, Belgium, Canada, Switzerland, Germany, Spain, Finland, France, Great Britain, Greek, Ireland, Iceland, Italy, Japan, Netherland, Norway, New Zealand, Portugal, Sweden and United States.

Russia, India, Indonesia, China, and South Africa; EAST consists of Czech, Poland, Hungary, Turkey, Estonia, Slovenia and Slovakia; and ROW stands for the rest of the world.

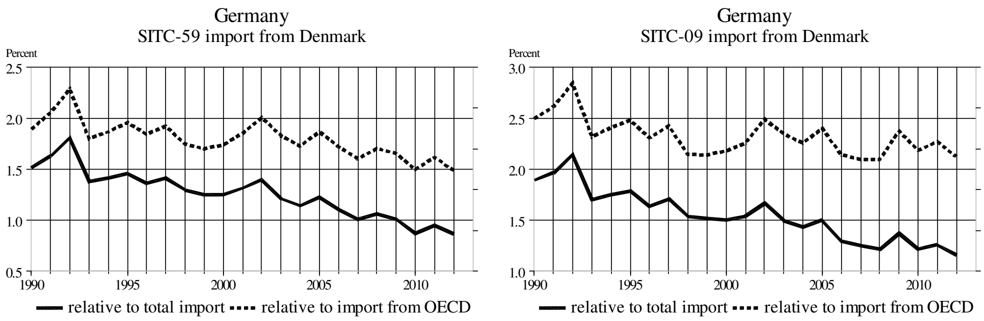
Figure 1. Imports of total goods split by place of origin

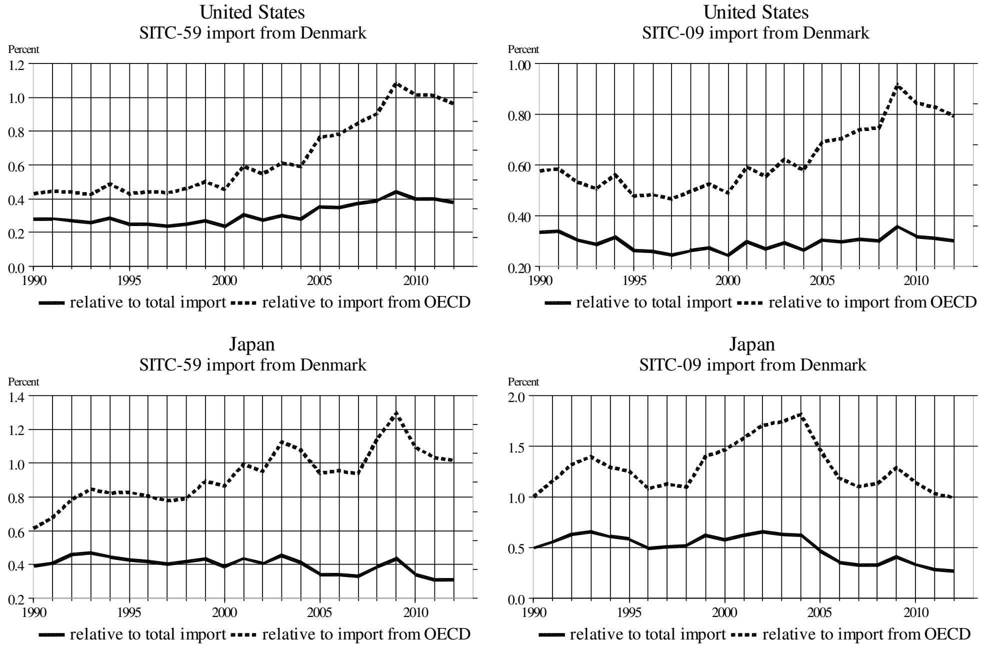


German imports from OECD dropped by about 20 percent from 1990 to 2012 and the same is true for US imports. Imports from BRIICS have been continuously rising in both countries. Trade with East Europe is significant in Germany and not in US, due to among others geographical proximity and free trade agreements. Figure 1 clearly shows that the share of emerging economies trade in Germany and US has been steadily growing, leaving smaller and smaller room for OECD exports. A similar figure for other western economies will show the same picture.

Figure 1 does not say anything about the share of each OECD country in Germany and US, and particularly the share of Denmark. While the overall share of OECD's trade is falling, the share of each OECD country in Germany and US need not necessarily fall. Some countries are more competitive than others and can maintain a stable share of the market despite emerging economies growing presence. Figure 2 shows the share of Denmark in imports of selected countries.

Figure 2. Imports from Denmark in different countries





Both manufactured and total good imports of Germany from Denmark relative to total German imports from the world have been falling for the sample periods covered. However, Denmark is able to maintain a stable share of German market for total goods in the intra-OECD trade, which is attributed to Danish agriculture and raw material exports. Although difficult to see for the naked eye, the rate of decline in German SITC59 imports from Denmark relative to other OECD countries is a percent less than relative to total imports from the world.

Danish exports to US have been increasing and the increase is relatively strong compared to OECD exports to US. Danish manufactured exports to Japan demonstrate clearly the main point of this paper. Danish exports to Japan are falling relative to imports from the world, but the Danish share compared to OECD countries' export to Japan is increasing. Hence, it is not Denmark the emerging economies are crowding out from the Japanese market. The growing share of Danish exports to geographically distant countries like US and Japan can be attributed to the falling transportation costs and speaks in favour of Danish exporters' ability to reach remote markets.

Figure 2 showed Danish shares in imports of selected countries have been stable or increasing compared to other OECD countries. A similar figure in other countries could, nevertheless, show the opposite. Hence, it would be natural to have an overall picture of the market share in the OECD markets, we turn to this now.

3. Danish market share in the OECD market

The export market and market prices indices in ADAM are calculated as:

$$\frac{fEe}{fEe_{-1}} = (\sum_j we_{j,-1} * \frac{fEe_j}{fEe_{j,-1}}) \quad (1)$$

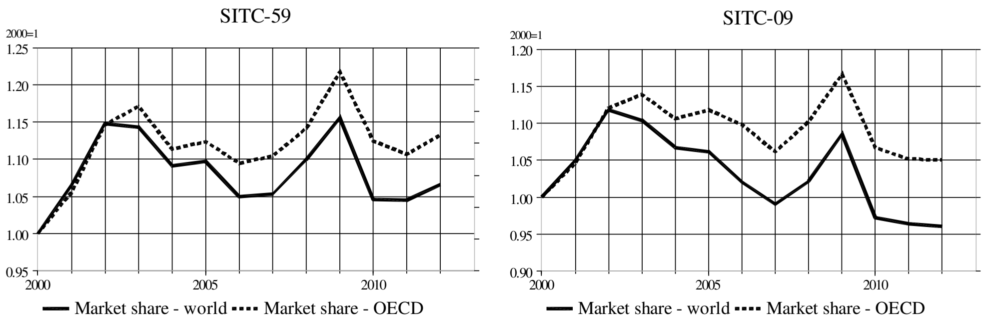
$$\frac{pee}{pee_{-1}} = (\sum_j we_{j,-1} * \frac{pee_j}{pee_{j,-1}}) \quad (2)$$

Where *j* denotes trading partners, *fEe* is the market index at fixed prices (2005=1), *pee* is competitors' price or market price, fEe_j and pee_j are volume and price of imports of country *j* from the world, we_j is the share of Danish exports to partner *j*.

The paper DSI231112 explains the data source and methodology used for the export market and market price indices. The market indices are constructed using the OECD ITCS-database. Trade flows in current price are split into price and quantity using unit value indices. Price indices based on unit values can be subjected to shortcomings. But market indices in current price are a reliable measure. The market indices in ADAM are also proportionally adjusted to add up to the national accounts data for total goods, here we skip the proportional adjustment to be able to compare different series.

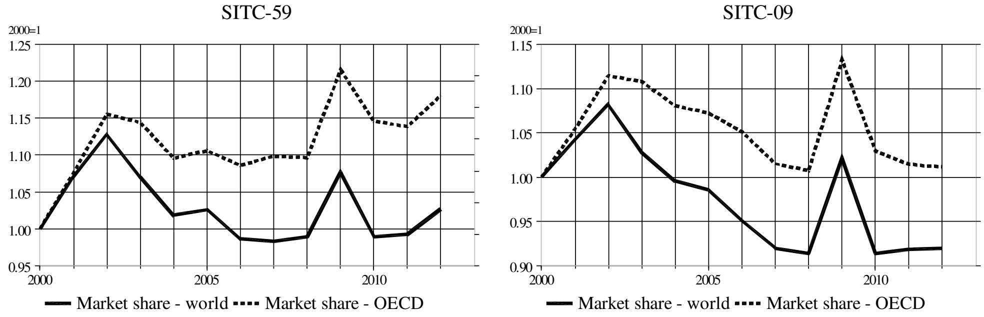
Figure 3 shows market share in current prices. The ratio between Danish exports to the world and the market index (1) in current prices using trading partners import from the world is referred as 'market share – world' and the ratio between Danish exports to OECD countries and (1) based on partners import from OECD countries only is referred as 'market share – OECD'.

Figure 3. Danish market share in current prices



The Danish market share for SITC-59 conveys the main argument in this paper. The Danish market share is more or less stable in the intra-OECD trade. The market share for total goods also shows the same pattern, the fall in market share is smaller when trade only between OECD countries is considered. Figure 4 presents market share in fixed prices. It supports the basic conclusion in current prices.

Figure 4. Danish market share in fixed prices



4. Conclusion

Emerging economies, mainly BRIICS and Eastern European countries, trade with OECD countries have been continuously increasing in the past decade. This will leave smaller room for OECD countries' export. However, the market share of each OECD country in the intra-OECD trade need not fall equally. It is shown that the Danish market share in the OECD market is stable once emerging economies are excluded from the OECD market. While it is interesting to see that the Danish market share is more or less stable in the intra-OECD trade, a more rigors investigation of the Danish market share in the emerging markets is indispensable. Such avenues are currently being pursued by the authors.